

C L A I M S

1. An evacuation system for a building comprising:

5 at least one selectably lowerable, collapsible, generally vertical transporter arranged for selectable communication with at least one floor of a building; and

a controller for selectably lowering at least one platform of said transporter from said at least one floor to a level at which egress of persons may safely
10 occur.

2. An evacuation system according to claim 1 and wherein said at least one transporter comprises a multiple-platform transporter, arranged for selectable communication with multiple floors of a building.

3. An evacuation system according to claim 2 and wherein said at least one selectably lowerable, multiple-platform, generally vertical transporter comprises:

a plurality of stackable platforms arranged to be supported on multiple generally vertical supports, at least some of said plurality of stackable platforms being
20 arranged in mutually spaced relationship, each in communication with a different floor of said building for evacuation loading.

4. An evacuation system according to claim 3 and wherein said plurality of stackable platforms are arranged in a mutually collapsed relationship when not in use.

5. An evacuation system according to claim 3 and wherein said plurality of stackable platforms are arranged in a mutually collapsed relationship following evacuation unloading.

6. An evacuation system according to any of claims 3 - 5 and wherein said multiple generally vertical supports comprise cables.

7. An evacuation system according to any of claims 3 - 5 and wherein said multiple generally vertical supports comprise rigid support elements.

8. An evacuation system according to any of claims 3 - 7 and wherein said plurality of stackable platforms each comprise a bottom support surface and a peripheral enclosing element.

9. An evacuation system according to claim 8 and wherein said peripheral enclosing element comprises a wall element formed of fabric.

10. An evacuation system according to claim 9 and wherein said fabric comprises at least one of a heat resistant fabric, a fire resistant fabric and a smoke resistant fabric.

11. An evacuation system according to any of claims 1 - 10 and also comprising at least one building mounted stabilizing element cooperating with said transporter for stabilizing said transporter against lateral forces.

12. An evacuation system according to any of claims 2 - 11 and wherein:
said at least one transporter comprises a plurality of transporters; and
said controller is operative to individually control individual ones of said plurality of transporters wherein multiple platforms of different transporters may be simultaneously positioned in communication with different groups of multiple floors of said building for simultaneous evacuation loading.

13. An evacuation system according to any of claims 2 - 12 and wherein:
said controller is operative to simultaneously position said multiple platforms in communication with multiple egress levels of said building for simultaneous evacuation.

14. An evacuation system according to any of claims 2 - 13 and wherein said at least one transporter is also operative for lifting persons from said at least one egress level to said multiple floors of said building.

5 15. An evacuation system according to any of claims 1 - 11 and wherein said transporter is building mounted.

16. An evacuation system according to claim 15 and wherein said controller is operative to selectably lower said at least one platform to said egress level in the
10 absence of electrical power.

17. An evacuation system according to any of claims 1 - 11 and wherein said transporter is portable.

15 18. An evacuation system according to claim 17 and wherein said portable transporter is raised and lowered by a telescopic piston.

19. An evacuation system for a building comprising:
at least one selectably lowerable, multiple-platform, generally vertical
20 transporter arranged for selectable communication with multiple floors of a building;
and
a controller for selectably lowering said multiple platforms of said at least one transporter from said multiple floors to at least one egress level at which egress of persons may safely occur.

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20. An evacuation system according to claim 19 and wherein said at least one selectably lowerable, multiple-platform, generally vertical transporter comprises:

a plurality of stackable platforms arranged to be supported on multiple generally vertical supports, at least some of said plurality of stackable platforms being
30 arranged in mutually spaced relationship, each in communication with a different floor of said building for evacuation loading.

21. An evacuation system according to claim 20 and wherein said plurality of stackable platforms are arranged in a mutually collapsed relationship when not in use.

22. An evacuation system according to any of claims 20 - 21 and wherein
5 said plurality of stackable platforms are arranged in a mutually collapsed relationship following evacuation unloading.

23. An evacuation system according to any of claims 20 - 22 and wherein
said multiple generally vertical supports comprise cables.

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24. An evacuation system according to any of claims 20 - 22 and wherein
said multiple generally vertical supports comprise rigid support elements.

25. An evacuation system according to any of claims 20 - 24 and wherein
15 said plurality of stackable platforms each comprise a bottom support surface and a peripheral enclosing element.

26. An evacuation system according to claim 25 and wherein said peripheral
enclosing element comprises a wall element formed of fabric.

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27. An evacuation system according to claim 26 and wherein said fabric
comprises at least one of a heat resistant fabric, a fire resistant fabric and a smoke
resistant fabric.

28. An evacuation system according to any of claims 19 - 27 and also
25 comprising at least one building mounted stabilizing element cooperating with said
transporter for stabilizing said transporter against lateral forces.

29. An evacuation system according to any of claims 19 - 28 and wherein:
30 said at least one transporter comprises a plurality of transporters; and
said controller is operative to individually control individual ones of said
at least one transporters wherein multiple platforms of different transporters may be

simultaneously positioned in communication with different groups of multiple floors of said building for simultaneous evacuation loading.

30. An evacuation system according to any of claims 19 - 29 and wherein:

5 said controller is operative to simultaneously position said multiple platforms in communication with multiple egress levels of said building for simultaneous evacuation.

31. An evacuation system according to any of claims 19 - 30 and wherein

10 said at least one transporter is also operative for lifting persons from said at least one egress level to said multiple levels of said building.

32. An evacuation system according to any of claims 19 - 20 and wherein said multiple platforms comprise nestable platforms.

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33. An evacuation system according to any of claims 19 - 32 and wherein said transporter is building mounted.

34. An evacuation system according to claim 33 and wherein said controller

20 is operative to selectably lower said at least one platform to said egress level in the absence of electrical power.

35. An evacuation system according to any of claims 19 - 32 and wherein said transporter is portable.

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36. An evacuation system according to claim 35 and wherein said portable transporter is raised and lowered by a telescopic piston.

37. An evacuation system for a building comprising:

30 at least one, selectably lowerable, selectably mutually spacable, multiple-platform, generally vertical transporter arranged for selectable communication with multiple floors of a building; and

a controller for selectably lowering said multiple platforms of said transporter from said multiple floors to a level at which egress of persons may safely occur,

5 mutual spacing between said multiple platforms being reducible when they are not holding persons.

38. An evacuation system according to claim 37 and wherein said at least one transporter comprises a plurality of stackable platforms arranged to be supported on multiple generally vertical supports.

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39. An evacuation system according to claim 38 and wherein said multiple generally vertical supports comprise cables.

40. An evacuation system according to claim 38 and wherein said multiple
15 generally vertical supports comprise rigid support elements.

41. An evacuation system according to any of claims 38 - 40 and wherein said plurality of stackable platforms each comprise a bottom support surface and a peripheral enclosing element.

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42. An evacuation system according to claim 41 and wherein said peripheral enclosing element comprises a wall element formed of fabric.

43. An evacuation system according to claim 42 and wherein said fabric
25 comprises at least one of a heat resistant fabric, a fire resistant fabric and a smoke resistant fabric.

44. An evacuation system according to any of claims 37 - 43 and also comprising at least one building mounted stabilizing element cooperating with said
30 transporter for stabilizing said transporter against lateral forces.

45. An evacuation system according to any of claims 37 - 44 and wherein:

said at least one transporter comprises a plurality of transporters; and
said controller is operative to individually control individual ones of said
plurality of transporters wherein multiple platforms of different transporters may be
simultaneously positioned in communication with different groups of multiple floors of
5 said building for simultaneous evacuation loading.

46. An evacuation system according to any of claims 37 - 45 and wherein:
said controller is operative to simultaneously position said multiple
platforms in communication with multiple egress levels of said building for
10 simultaneous evacuation.

47. An evacuation system according to any of claims 37 - 46 and wherein
said at least one transporter is also operative for lifting persons from said at least one
egress level to said multiple floors of said building.

15 48. An evacuation system according to any of claims 37 - 47 and wherein
said transporter is building mounted.

49. An evacuation system according to claim 48 and wherein said controller
20 is operative to selectably lower said at least one platform to said egress level in the
absence of electrical power.

50. An evacuation system according to any of claims 37 - 47 and wherein
said transporter is portable.

25 51. An evacuation system according to claim 50 and wherein said portable
transporter is raised and lowered by a telescopic piston.

52. A method for evacuation of a building comprising:
30 selectably positioning at least one selectably lowerable, collapsible,
generally vertical transporter in communication with at least one floor of a building; and

selectably lowering said at least one platform of said at least one transporter from said at least one floor to at least one egress level at which egress of persons may safely occur.

5 53. An evacuation method according to claim 52 and wherein:
said at least one transporter comprises a multiple-platform transporter;
and

said selectably positioning comprises selectably positioning said multiple platforms in communication with multiple floors of a building.

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54. An evacuation method according to any of claims 52 - 53 and also comprising stabilizing said transporter against lateral forces.

15 55. An evacuation method according to any of claims 53 - 54 and wherein:
said at least one transporter comprises a plurality of transporters; and
said selectably positioning comprises simultaneously positioning individual ones of said plurality of transporters wherein multiple platforms of different transporters are in communication with different groups of multiple floors of said building for simultaneous evacuation loading.

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56. An evacuation method according to any of claims 53 - 55 and also comprising simultaneously positioning said multiple platforms in communication with multiple egress levels of said building for simultaneous evacuation.

25 57. A method for evacuation of a building comprising:
selectably positioning at least one selectably lowerable, multiple-platform, generally vertical transporter in communication with multiple floors of a building; and

30 selectably lowering said multiple platforms of said at least one transporter from said multiple floors to at least one egress level at which egress of persons may safely occur.

58. An evacuation method according to claim 57 and wherein said selectably positioning comprises selectably positioning a plurality of stackable platforms, each in communication with a different floor of said building for evacuation loading.

5 59. An evacuation method according to any of claims 57 - 58 and also comprising stabilizing said transporter against lateral forces.

60. An evacuation method according to any of claims 57 - 59 and wherein:
said at least one transporter comprises a plurality of transporters; and
10 said selectably positioning comprises simultaneously positioning individual ones of said plurality of transporters wherein multiple platforms of different transporters are in communication with different groups of multiple floors of said building for simultaneous evacuation loading.

15 61. An evacuation method according to any of claims 19 - 29 and also comprising simultaneously positioning said multiple platforms in communication with multiple egress levels of said building for simultaneous evacuation.

62. A method for evacuation of a building comprising:
20 selectably positioning at least one, selectably lowerable, selectably mutually spacable, multiple-platform, generally vertical transporter in communication with multiple floors of a building;
selectably lowering said multiple platforms of said transporter from said multiple floors to a level at which egress of persons may safely occur; and
25 reducing mutual spacing between said multiple platforms following said egress of persons.

63. An evacuation method according to claim 62 and also comprising stabilizing said transporter against lateral forces.

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64. An evacuation method according to any of claims 62 - 63 and wherein:
said at least one transporter comprises a plurality of transporters; and

said selectably positioning comprises simultaneously positioning individual ones of said plurality of transporters wherein multiple platforms of different transporters are in communication with different groups of multiple floors of said building for simultaneous evacuation loading.

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65. An evacuation system according to any of claims 62 - 64 and also comprising simultaneously positioning said multiple platforms in communication with multiple egress levels of said building for simultaneous evacuation.

10 66. A method for simultaneously lifting people to multiple levels of a building comprising:

selectably positioning at least one selectably liftable, multiple-platform, generally vertical transporter in communication with an ingress level of a building; and

selectably lifting said multiple platforms of said at least one transporter to
15 multiple floors of said building.

67. A method according to claim 66 and wherein said selectably positioning comprises sequentially positioning a plurality of stackable platforms, each in communication with said ingress level.

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68. A method according to any of claims 66 - 67 and also comprising stabilizing said transporter against lateral forces.

69. A method according to any of claims 66 - 68 and also comprising
25 simultaneously positioning said multiple platforms in communication with multiple ingress levels of said building for simultaneous loading.